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RAW SEQUENCE LISTING   DATE: 03/13/2002
PATENT APPLICATION: US/09/993,292A   TIME: 10:59:50

Input Set : A:\UOFMD.007A.SEQLIST.TXT
Output Set: N:\CRF3\03132002\I993292A.raw

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 4 <110> APPLICANT: James E. Galen
 5       University of Maryland
 7 <120> TITLE OF INVENTION: USE OF CLY A HEMOLYSIN FOR EXCRETION OF
 8       PROTEINS
10 <130> FILE REFERENCE: UOFMD.007A
12 <140> CURRENT APPLICATION NUMBER: 09/993,292A
13 <141> CURRENT FILING DATE: 2001-11-23
15 <150> PRIOR APPLICATION NUMBER: 60/252,516
16 <151> PRIOR FILING DATE: 2000-11-22
18 <160> NUMBER OF SEQ ID NOS: 19
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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23 <211> LENGTH: 6271
24 <212> TYPE: DNA
25 <213> ORGANISM: Artificial Sequence
27 <220> FEATURE:
28 <223> OTHER INFORMATION: pSEC84 Expression Plasmid
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33 taaagttaat gatgatagcg ggagttattc tagttgcgag tgaaggtttt gttttgacat 180
34 tcagtgctgt caaatactta agaataagtt attgatttta accttgaatt attattgctt 240
35 gatgttaggt gcttatttcg ccattccgca ataatcttaa aaagttccct tgcatttaca 300
36 ttttgaaaca tctatagcga taaatgaaac atcttaaaag ttttagtatc atattcgtgt 360
37 tggattattc tgcatttttg gggagaatgg acttgccgac tgattaatga gggttaatca 420
38 gtatgcagtg gcataaaaaa gcaaataaag gcatataaca gatcgatctt aaacatccac 480
39 aggaggatgg gatccaaaat aaggaggaaa aaaaaatgac tagtattttt gcagaacaaa 540
40 ctgtagaggt agttaaaagc gcgatcgaaa ccgcagatgg ggcattagat ctttataaca 600
41 aatacctcga ccaggtcatc ccctggaaga cctttgatga aaccataaaa gagttaagcc 660
42 gttttaaaca ggagtactcg caggaagctt ctgtttttagt tggtgatatt aaagttttgc 720
43 ttatggacag ccaggacaag tatttttgaag cgacacaaac tgtttatgaa tggtgtggtg 780
44 tcgtgacgca attactctca gcgtatattt tactatttga tgaatataat gagaaaaaag 840
45 catcagccca gaaagacatt ctcattagga tattagatga tggtgtcaag aaactgaatg 900
46 aagcgcaaaa atctctcctg acaagttcac aaagtttcaa caacgcttcc ggaaaactgc 960
47 tggcattaga tagccagtta actaatgatt tttcggaaaa aagtagttat ttccagtcac 1020
48 aggtggatag aattcgtaag gaagcttatg ccggtgctgc agccggcata gtcgccggtc 1080
49 cgtttggatt aattatttcc tattctattg ctgcgggcgt gattgaaggg aaattgattc 1140
50 cagaattgaa taacaggcta aaaacagtgc aaaatttctt tactagctta tcagctacag 1200
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53 taatgctttc tttattaaaa ggagctgcaa agaaaatgat taacacctgt aatgaatacc 1380
54 aacaacgtca tggtaagaag acgcttttcg aggttcctga cgtcgctagc tgataaccta 1440
55 gggccagcaa aaggccagga accgtaaaaa ggccgcgttg ctggcgtttt tccataggct 1500
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 59 tcatagctca cgctgtaggt atctcagttc ggtgtaggtc gttcgctcca agctgggctg 1740
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 66 ggggtctgac gctcagtaga tctaaaacac taggcccaag agtttgtaga aacgcaaaaa 2160
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 69 tcctactcag gagagcgttc accgacaaac aacagataaa acgaaaggcc cagtctttcg 2340
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105 ctcaagcgcc gggcacatca tagcccatat acctgcacgc tgaccacact cactttccct 4500
106 gaaaataatc cgctcattca gaccgttcac gggaaatccg tgtgattgtt gccgcatcac 4560
107 gctgcctccc ggagtttgtc tcgagcactt ttgttacccg ccaaacaaaa cccaaaaaca 4620
108 acccataccc aacccaataa aacaccaaaa caagacaaat aatcattgat tgatggttga 4680
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131 caatagtcac tcaatcctct tcacaacaag agcaaaaaag tgatgaagag accaaaaaaa 6060
132 atgcgatgaa gctaataaat taattcaatt attattgagt tcccttttatc cactatcagg 6120
133 ctggataaag ggaactcaat caagttattt tcttaccagt cattacataa tcgttattat 6180
134 gaaataatcg tttgcactgt ctctgttatt caggcaattt caataaaggc acttgctcac 6240
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138 <211> LENGTH: 305
139 <212> TYPE: PRT
140 <213> ORGANISM: Salmonella Typhi
142 <400> SEQUENCE: 2
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144  1               5                  10                  15
145 Ile Glu Thr Ala Asp Gly Ala Leu Asp Leu Tyr Asn Lys Tyr Leu Asp
146            20                  25                  30
147 Gln Val Ile Pro Trp Lys Thr Phe Asp Glu Thr Ile Lys Glu Leu Ser
148            35                  40                  45
149 Arg Phe Lys Gln Glu Tyr Ser Gln Glu Ala Ser Val Leu Val Gly Asp
150      50                  55                  60
151 Ile Lys Val Leu Leu Met Asp Ser Gln Asp Lys Tyr Phe Glu Ala Thr
152 65                  70                  75                  80
153 Gln Thr Val Tyr Glu Trp Cys Gly Val Val Thr Gln Leu Leu Ser Ala
154                  85                  90                  95
155 Tyr Ile Leu Leu Phe Asp Glu Tyr Asn Glu Lys Lys Ala Ser Ala Gln
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156              100              105              110
157 Lys Asp Ile Leu Ile Arg Ile Leu Asp Asp Gly Val Lys Lys Leu Asn
158         115              120              125
159 Glu Ala Gln Lys Ser Leu Leu Thr Ser Ser Gln Ser Phe Asn Asn Ala
160     130              135              140
161 Ser Gly Lys Leu Leu Ala Leu Asp Ser Gln Leu Thr Asn Asp Phe Ser
162 145              150              155              160
163 Glu Lys Ser Ser Tyr Phe Gln Ser Gln Val Asp Arg Ile Arg Lys Glu
164              165              170              175
165 Ala Tyr Ala Gly Ala Ala Ala Gly Ile Val Ala Gly Pro Phe Gly Leu
166         180              185              190
167 Ile Ile Ser Tyr Ser Ile Ala Ala Gly Val Ile Glu Gly Lys Leu Ile
168         195              200              205
169 Pro Glu Leu Asn Asn Arg Leu Lys Thr Val Gln Asn Phe Phe Thr Ser
170     210              215              220
171 Leu Ser Ala Thr Val Lys Gln Ala Asn Lys Asp Ile Asp Ala Ala Lys
172 225              230              235              240
173 Leu Lys Leu Ala Thr Glu Ile Ala Ala Ile Gly Glu Ile Lys Thr Glu
174              245              250              255
175 Thr Glu Thr Thr Arg Phe Tyr Val Asp Tyr Asp Asp Leu Met Leu Ser
176         260              265              270
177 Leu Leu Lys Gly Ala Ala Lys Lys Met Ile Asn Thr Cys Asn Glu Tyr
178         275              280              285
179 Gln Gln Arg His Gly Lys Lys Thr Leu Phe Glu Val Pro Asp Val Ala
180     290              295              300
181 Ser
182 305
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186 <211> LENGTH: 102
187 <212> TYPE: DNA
188 <213> ORGANISM: Artificial Sequence
190 <220> FEATURE:
191 <223> OTHER INFORMATION: Cloning primer
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195 tagttaaaag cgcgatcgaa accgcagatg gggcattaga tc                     102
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198 <211> LENGTH: 101
199 <212> TYPE: DNA
200 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: Cloning primer
205 <400> SEQUENCE: 4
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207 ttggtattca ttacaggtgt taatcatttt ctttgcagct c                      101
209 <210> SEQ ID NO: 5
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211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial Sequence
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215 <223> OTHER INFORMATION: Cloning primer
217 <400> SEQUENCE: 5
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219 tagacagctt atcatcgata agctttaatg cggtagt                          97
221 <210> SEQ ID NO: 6
222 <211> LENGTH: 69
223 <212> TYPE: DNA
224 <213> ORGANISM: Artificial Sequence
226 <220> FEATURE:
227 <223> OTHER INFORMATION: Cloning primer
229 <400> SEQUENCE: 6
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231 cgcaacgcg                                                         69
233 <210> SEQ ID NO: 7
234 <211> LENGTH: 60
235 <212> TYPE: DNA
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: Cloning primer
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245 <210> SEQ ID NO: 8
246 <211> LENGTH: 101
247 <212> TYPE: DNA
248 <213> ORGANISM: Artificial Sequence
250 <220> FEATURE:
251 <223> OTHER INFORMATION: Cloning primer
253 <400> SEQUENCE: 8
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258 <211> LENGTH: 101
259 <212> TYPE: DNA
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262 <220> FEATURE:
263 <223> OTHER INFORMATION: Cloning primer
265 <400> SEQUENCE: 9
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267 ctagctcatg tttgacagct tatcatcgat aacctttaat g                    101
269 <210> SEQ ID NO: 10
270 <211> LENGTH: 71
271 <212> TYPE: DNA
272 <213> ORGANISM: Artificial Sequence
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Cloning primer
277 <400> SEQUENCE: 10
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VERIFICATION SUMMARY   DATE: 03/13/2002
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L:260 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9
L:531 M:351 W: Sequence data Name/Key Feature Out-of-Range, SEQ ID#:19, CDS LOCATION: (0)...
(2253)